Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-2. (Canceled)

3. (Currently amended) A liquid crystal displaying apparatus capable of displaying a color image, comprising:

a liquid crystal panel in which each main pixel unit ~~including~~ includes a red sub-pixel, a green sub-pixel, a blue sub-pixel and a luminance-enhancing sub-pixel, and

calculation means for calculating digital output values Ro, Go and Bo for driving ~~said~~the red sub-pixel, ~~said~~the green sub-pixel and ~~said~~the blue sub-pixel, respectively, from digital input values Ri, Gi and Bi respectively for ~~said~~the red sub-pixel, ~~said~~the green sub-pixel and ~~said~~the blue sub-pixel and ~~a predetermined~~ digital value W for driving ~~said~~the luminance-enhancing sub-pixel so that a relationship of Ri:Gi:Bi = (Ro+W):(Go+W):(Bo+W) is satisfied, ~~said~~the values RI, Gi and Bi being obtained from an input color image,

wherein ~~said~~ the digital value W is ~~obtained in accordance with a function represented by a formula W = f(Ymax, Ymin) where Ymax and Ymin are~~ based on both a maximum value and a minimum value~~, respectively,~~ of ~~said~~the digital input values ~~for said red sub-pixel, said green sub-pixel and said blue sub-pixel~~.

4. (Currently amended) ~~A~~ The liquid crystal displaying apparatus ~~according to~~ of claim 3, wherein ~~characterized in that said function represented by said formula W = f(Ymax, Ymin) is a function which~~ the digital value W monotonously increases as a value of ~~said Ymax value or said Ymin value~~ the maximum value or the minimum becomes larger.

5. (Currently amended) ~~A~~ The liquid crystal displaying apparatus ~~according to~~ of claim 3, wherein ~~characterized in that said formula of W is given by a function in which said Ymin~~ the minimum value is a variable ~~with said Ymax being~~ and the maximum value is a constant, and ~~in that said function represented by said formula W = f(Ymax, Ymin) is a function which~~ the digital value W monotonously increases as ~~a value of said Ymin~~ the minimum value becomes larger.

6. (Canceled)

7. (Currently amended) A display device comprising:

a plurality of picture elements,

each picture element including a plurality of color sub-pixels and a white sub-pixel,

a decoder that is configured to receive a plurality of input color values and to produce therefrom a plurality of color luminance pixel values that are used to drive corresponding color sub-pixels, and white pixel values that are used to drive the corresponding white sub-pixels,

wherein

the decoder is configured to:

determine a minimum color luminance value and a maximum color luminance value for each picture element,

produce the color luminance pixel values for each picture element dependent upon the input color values and the maximum color luminance value, and

produce the white pixel value for each picture element based on the minimum color luminance value.

8. (Currently amended) The display device of claim 7, wherein

the decoder is configured to produce the color luminance pixel values for each picture element dependent also upon the white pixel value.

9. (Currently amended) The display device of claim 8, wherein

the decoder is configured to produce the white pixel value for each picture element dependent also upon the maximum color luminance value.

10. (Currently amended) The display device of claim 9, wherein

the white pixel value is <= Ymin*Ymax/(Ymax-Ymin) when Ymin/Ymax <=0.5, and

the white pixel value is <= Ymax when Ymin/Ymax > 0.5,

where Ymin, Ymax corresponds to the minimum color luminance value and the maximum color luminance value, respectively.

11. (Currently amended) The display device of claim 10, wherein

each color luminance pixel value corresponds to Ci*(W+Ymin)/Ymax – W,

where Ci, W, Ymin, and Ymax correspond to the input color value, the white pixel value, the minimum color luminance value and the maximum color luminance value, respectively.

12. (Currently amended) The display device of claim 7, wherein

the decoder is configured to produce the white pixel value for each picture element dependent also upon the maximum color luminance value.

13. (Currently amended) The display device of claim 12, wherein

the white pixel value is <= Ymin*Ymax/(Ymax-Ymin) when Ymin/Ymax <=0.5, and

the white pixel value is <= Ymax when Ymin/Ymax > 0.5,

where Ymin, Ymax corresponds to the minimum color luminance value and the maximum color luminance value, respectively.

14. (Currently amended) The display device of claim 7, wherein

each color luminance pixel value corresponds to Ci*(W+Ymin)/Ymax – W,

where Ci, W, Ymin, and Ymax correspond to the input color value, the white pixel value, the minimum color luminance value and the maximum color luminance value, respectively.

15. (Currently amended) The display device of claim 7, wherein

the decoder is configured to provide the color luminance pixel values for each picture element such that a ratio of the color luminance pixel values to each other corresponds to a ratio of the input color values to each other.

16. (Currently amended) A method of determining a set of output luminance values for driving sub-pixels of a pixel based on input color values, comprising:

determining a minimum color luminance value and a maximum color luminance value based on the input color values,

determining each output color luminance value of the set of output luminance values based on the corresponding input color value and the maximum color luminance value, and

determining an output white value of the set of output luminance values based on the minimum color luminance value.

17. (Currently amended) The method of claim 16, wherein

determining each output color luminance value includes

determining each output color luminance value so that a ratio of each output color luminance value to each other corresponds to a ratio of each input color value to each other.

18. (Currently amended) The method of claim 16, wherein

determining each output color luminance value is also based on the output white value.

19. (Currently amended) The method of claim 16, wherein

determining the output white value is also based on the maximum color luminance value.

20. (Currently amended) The method of claim 16, wherein

determining each output color luminance value includes

calculating $Co = Ci*(W+Ymin)/Ymax - W$,

where Co, Ci, W, Ymin, and Ymax correspond to the output color luminance value, input color value, the white pixel value, the minimum color luminance value and the maximum color luminance value, respectively.